

**MODIS Technical Team Meeting**  
**Thursday, January 30, 2003**  
**Building 33, Room E125**

Vince Salomonson chaired the meeting. In attendance were Barbara Conboy, Steve Kempler, Shaيدا Johnston, Bob Barnes, Bruce Guenther, Bill Barnes, Jack Xiong, Robert Wolfe, Wayne Esaias, Skip Reber, Ed Masuoka, Chris Justice, and Michael King, with Yolanda Harvey taking the minutes.

## **1.0 Upcoming events**

- Semi-annual Reports Due January 15, 2003, covering period July-December 2002.
- MODIS Oceans Workshop, February 3-4, 2003, New Hampshire, USA
- Data Products Review March 10-11, 2003
- Ocean Color Meeting, April 15-17, 2003, Miami, Florida, USA.
- IGARSS 2003, July 21-25, 2003, Toulouse, France (abstracts due by January 17, 2003). <http://www.igarss03.com/>
- 10<sup>th</sup> International Symposium on Remote Sensing by The International Society for Optical Engineering (SPIE). September 8-12, 2003, Barcelona, Spain (abstracts due by February 10, 2003). <http://www.spie.org/info/rs>

## **2.0 Meeting Minutes**

### **2.1 General Discussion**

Salomonson reported that information on the NRA is starting to appear; letters of intent will be due by February 15, proposals will be due April 15, etc.

Salomonson reported that he is trying to come up with an estimate of the number of M.S. and Ph.D. students who have been supported by MODIS funding. Inputs of the number of Master and Doctoral degrees are due to Barbara Conboy ([Barbara.L.Conboy@nasa.gov](mailto:Barbara.L.Conboy@nasa.gov)) on February 5, 2003. He also reminded members to send updates on the MODIS publications list to Yolanda Harvey ([yharvey@pop900.gsfc.nasa.gov](mailto:yharvey@pop900.gsfc.nasa.gov)) as soon as possible.

Bob Barnes reported that SeaWiFS lunar maneuvers will occur in April, and that Gene Feldman said that they would probably end up looking at the Moon twice that month, though he was waiting for more information.

### **2.2 Instrument Status**

Xiong reported that MCST has delivered both the Terra and Aqua LUTs; the Terra LUT is already in production, and the Aqua LUT is going into production soon. MCST sent the University of Miami the M1 values from a three-year period for the Ocean Color Bands, and will be sending an additional 2-3 data sets.

Barnes noted that Band 1 seems to be degrading at a faster rate than Band 8 (the red band), which is a little strange, so they are looking into it.

#### *2.2.1 Aqua MODIS*

Xiong reported that the issue of dropped commands is still under study, and a meeting about when to test and install the patch for the problem has been postponed, though the software has been prepared.

Xiong reported that the SD test with the screen down has been planned and the results from the test will be sent to University of Miami to examine the gain change impact for the ocean color bands.

Xiong reported that the SRCA test has been completed. There were a couple of major issues from the SRCA test. One was with using the three ten-watt lamps to track the detector response change over time: in the last two tests (at 20 and 30 watts), the change was very large, and was caused by changes in one lamp. Xiong said that we may want to do tests to identify the lamp and thought that the problem is likely due to the amount of testing done using the lamps at pre-launch, which used up about 50-60 percent of the lamps' life. The other issue is that though there should not be any impact on Aqua radiometric calibration, there may be some impact if they use the same strategy for Terra radiometric calibration.

#### *2.2.2 Terra MODIS*

Xiong reported that the Terra MODIS is running fine with no major issues. Xiong reported that testing of the backup lamp would occur today (January 30, 2003).

### **2.3 DAAC**

Kempler reported that L1 is going as planned; Aqua is a few hours behind the leading edge; and there are 2 hours of gaps in Aqua data and 3 hours in Terra. He expressed concern about the Data Pools – they are operational, but sluggish, so they're not getting full use out of them. They don't know what the problem is, and they've been looking into it for several weeks. But because of the buffer at MODAPS, this isn't affecting forward processing or reprocessing. Johnston asked if this is affecting distribution and ingest, and Kempler said that it is affecting all ingest, but is not affecting distribution.

Kempler reported that he will be meeting with Oceans next Thursday (February 6, 2003) about the 3-4 options for connecting a browse with the ordering interface, and will also soon talk to Atmospheres. Wolfe added that the browse with the NSIDC is within the EDG, and is similar to what the Goddard DAAC has for the L1B.

### **2.4 MODAPS**

Wolfe reported that everything is nominal with MODAPS. They saw good responses from EDOS on fixing the reprocessing problem for getting the GBAD data. Reprocessing is going fine; Wolfe reported a cumulative rate of 3.7x since Dec 20, 2002. They have been running both Land and Atmospheres reprocessing for the past 2 weeks, and the x-rate went down to 3.5 for a week, but after tuning went up to 3.7x, and they expect it to continue rising as they make more improvements, up to 4x. They are 12 days ahead of schedule for the December complete goal because the scheduled rate is 3.5x.

Salomonson said that he is assuming that everything in Collection 4 from November 2000 forward is valid, and before then is provisional (for Terra). Wolfe said yes, though the Land people have not yet confirmed it. Esaias said that Ocean Color in the forward stream is provisional, and valid from November 2, 2000, through March 13, 2002.

Salomonson asked where we are with Aqua geolocation, and Wolfe reported that he had a meeting that discussed a number of ways to fix the problem, which is a mix-up of the coordinate systems. Shaida added that it is similar to what happened with EO1 and LandsAT 7. Wolfe continued that he is going to press for changes to the dprep software as soon as possible for forward processing. If they have to change the flight software, it could take longer, but they would have to change the dprep software anyway for reprocessing. He added that he would find out about the schedule next week (week of February 3, 2003). Salomonson noted that until those changes go in, Land data on Aqua aren't even provisional, and Wolfe agreed. He continued that they've done test cases with the fix, and in all 4 cases the geolocation was off by less than 50 arc-seconds in the scan direction, which is much better. With this fix, geolocation on Aqua could end up being better than that on Terra.

## **2.5 Land Discipline**

Justice reported that he has sent in his list of publications to Harvey and has notified everyone on the Land team that they are to do so as well.

## **2.6 Atmospheres Discipline**

Salomonson asked if Atmospheres is able to work around the inoperable Band 6 on Aqua MODIS, and King replied that they have eliminated the use of band 6 for cloud effective radius on Aqua altogether, and are instead using bands 7 and 20. Salomonson noted that Dorothy Hall has been working on correlating working detectors on Bands 6 with the comparable detectors on band 7 to see if band 7 can be made to function as a replacement for band 6 in the snow-mapping algorithm.

King reported that he is working on designing a L2 PGE data product that combines the most important Atmosphere products, and that he has a design of the potential products, file size, and metadata. The product currently looks like a daytime granule of 3.2 megabytes, and a whole day of data will be able to fit on a CD with visualization tools. He said that he is adding tags so that the user can see which PGE version produced the product, the SDS names in L2 (if different), etc. He has a tentative design put together and is working with a programmer to put the product together. King said that he's trying to keep to a small file size that gives a lot of information, could be downloaded, and is easy to get and access. He also wants it to be registered at the Goddard DAAC. This new product will be proposed in the NRA, and though the products used to make this new product will all have ATBDs, the new joint level-2 product itself will not. The new product will be processed at MODAPS, and then will be pushed to the Goddard DAAC for archiving. He would also like to include visualization tool interfaces that don't require IDL licenses, since they are expensive and limit the number of users, especially in foreign countries.

## **3.0 Action Items**

### **3.1 New Action Items**

None.

### **3.2 Old Action Items**

3.2.1 King and Kempler to work together on getting ESDTs for the new Atmospheres L2 data product.

Status: Open.

3.2.2 Kempler to coordinate with Oceans group on creating documentation for the DAAC on the new Oceans L1A data subsets.

Status: Open.

3.2.3 Wolfe to contact Herring about the shopping cart feature for the Earth Observatory website.

Status: Open.

3.2.4 Tech Team to further discuss TRW using MODIS data for validation of the NPP/NPOESS production process.

Status: Open.

3.2.5 Masuoka to send out an explanation of ICD ESDTs to the Technical Team.

Status: Closed. Masuoka had Science Discipline Data Team leads review the ESDTs in the MODIS ICD. Everyone was fine with them and the ICD is going through the process of being baselined by ECS.

3.2.6 Funded MODIS Science Team Members to send a list of the number of advanced degrees (Master and Doctorate) produced as a result of funding support, etc., of your MODIS investigations to Barbara Conboy by February 5, 2003.

Status: Open.